

Jian Ping Gong

List of Publications by Year
in descending order

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436
papers

31,670
citations

5574

82
h-index

5539

163
g-index

449
all docs

449
docs citations

449
times ranked

15931
citing authors

#	ARTICLE	IF	CITATIONS
1	Facile preparation of cellulose hydrogel with Achilles tendon-like super strength through aligning hierarchical fibrous structure. Chemical Engineering Journal, 2022, 428, 132040.	12.7	20
2	Hydroxyapatite- χ hybridized double-network hydrogel surface enhances differentiation of bone marrow-derived mesenchymal stem cells to osteogenic cells. Journal of Biomedical Materials Research - Part A, 2022, 110, 747-760.	4.0	3
3	Unique crack propagation of double network hydrogels under high stretch. Extreme Mechanics Letters, 2022, 51, 101588.	4.1	14
4	Azo-Crosslinked Double-Network Hydrogels Enabling Highly Efficient Mechanoradical Generation. Journal of the American Chemical Society, 2022, 144, 3154-3161.	13.7	29
5	Quantitative determination of cation- π interactions between metal ions and aromatic groups in aqueous media by a hydrogel Donnan potential method. Physical Chemistry Chemical Physics, 2022, 24, 6126-6132.	2.8	1
6	Evaluation of biological responses to micro-particles derived from a double network hydrogel. Biomaterials Science, 2022, 10, 2182-2187.	5.4	3
7	Role of dynamic bonds on fatigue threshold of tough hydrogels. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2200678119.	7.1	24
8	Synthesis of degradable double network gels using a hydrolysable cross-linker. Polymer Chemistry, 2022, 13, 3756-3762.	3.9	3
9	Surfactant induced bilayer-micelle transition for emergence of functions in anisotropic hydrogel. Journal of Materials Chemistry B, 2022, 10, 8386-8397.	5.8	4
10	Synthetic poly(2-acrylamido-2-methylpropanesulfonic acid) gel induces chondrogenic differentiation of ATDC5 cells via a novel protein reservoir function. Journal of Biomedical Materials Research - Part A, 2021, 109, 354-364.	4.0	2
11	The Fracture of Highly Deformable Soft Materials: A Tale of Two Length Scales. Annual Review of Condensed Matter Physics, 2021, 12, 71-94.	14.5	103
12	Micromechanical modeling of the multi-axial deformation behavior in double network hydrogels. International Journal of Plasticity, 2021, 137, 102901.	8.8	36
13	Isotope Microscopic Observation of Osteogenesis Process Forming Robust Bonding of Double Network Hydrogel to Bone. Advanced Healthcare Materials, 2021, 10, e2001731.	7.6	6
14	Constitutive modeling of strain-dependent bond breaking and healing kinetics of chemical polyampholyte (PA) gel. Soft Matter, 2021, 17, 4161-4169.	2.7	6
15	Constitutive modeling of bond breaking and healing kinetics of physical Polyampholyte (PA) gel. Extreme Mechanics Letters, 2021, 43, 101184.	4.1	12
16	Aggregated structures and their functionalities in hydrogels. Aggregate, 2021, 2, e33.	9.9	39
17	Ultrahigh-Water-Content Photonic Hydrogels with Large Electro-Optic Responses in Visible to Near-Infrared Region. Advanced Optical Materials, 2021, 9, 2002198.	7.3	20
18	Rapid reprogramming of tumour cells into cancer stem cells on double-network hydrogels. Nature Biomedical Engineering, 2021, 5, 914-925.	22.5	48

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19	Molecular mechanism of abnormally large nonsoftening deformation in a tough hydrogel. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	21
20	Effect of mesoscale phase contrast on fatigue-delaying behavior of self-healing hydrogels. Science Advances, 2021, 7, .	10.3	37
21	Experimental Verification of the Balance between Elastic Pressure and Ionic Osmotic Pressure of Highly Swollen Charged Gels. Gels, 2021, 7, 39.	4.5	6
22	Nanophase Separation in Immiscible Double Network Elastomers Induces Synergetic Strengthening, Toughening, and Fatigue Resistance. Chemistry of Materials, 2021, 33, 3321-3334.	6.7	37
23	Hierarchical toughening: A step toward matching the complexity of biological materials. CheM, 2021, 7, 1153-1155.	11.7	2
24	Flower-like Photonic Hydrogel with Superstructure Induced via Modulated Shear Field. ACS Macro Letters, 2021, 10, 708-713.	4.8	7
25	Quantitative evaluation of macromolecular crowding environment based on translational and rotational diffusion using polarization dependent fluorescence correlation spectroscopy. Scientific Reports, 2021, 11, 10594.	3.3	15
26	Tough Double Network Hydrogel and Its Biomedical Applications. Annual Review of Chemical and Biomolecular Engineering, 2021, 12, 393-410.	6.8	60
27	Improving the strength and toughness of macroscale double networks by exploiting Poisson's ratio mismatch. Scientific Reports, 2021, 11, 13280.	3.3	11
28	Ultrapurified Alginate Gel Containing Bone Marrow Aspirate Concentrate Enhances Cartilage and Bone Regeneration on Osteochondral Defects in a Rabbit Model. American Journal of Sports Medicine, 2021, 49, 2199-2210.	4.2	4
29	Structure and Unique Functions of Anisotropic Hydrogels Comprising Uniaxially Aligned Lamellar Bilayers. Bulletin of the Chemical Society of Japan, 2021, 94, 2221-2234.	3.2	18
30	Facile tuning of hydrogel properties by manipulating cationic-aromatic monomer sequences. Science China Chemistry, 2021, 64, 1560-1568.	8.2	14
31	Bioinspired Underwater Adhesives. Advanced Materials, 2021, 33, e2102983.	21.0	178
32	Fast <i>in vivo</i> fixation of double network hydrogel to bone by monetite surface hybridization. Journal of the Ceramic Society of Japan, 2021, 129, 584-589.	1.1	2
33	Tiny yet tough: Maximizing the toughness of fiber-reinforced soft composites in the absence of a fiber-fracture mechanism. Matter, 2021, 4, 3646-3661.	10.0	11
34	A surface flattening method for characterizing the surface stress, drained Poisson's ratio and diffusivity of poroelastic gels. Soft Matter, 2021, 17, 7332-7340.	2.7	2
35	Barnacle Cement Proteins-Inspired Tough Hydrogels with Robust, Long-Lasting, and Repeatable Underwater Adhesion. Advanced Functional Materials, 2021, 31, 2009334.	14.9	148
36	Toughening hydrogels through force-triggered chemical reactions that lengthen polymer strands. Science, 2021, 374, 193-196.	12.6	124

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37	Structure Frustration Enables Thermal History-Dependent Responsive Behavior in Self-Healing Hydrogels. <i>Macromolecules</i> , 2021, 54, 9927-9936.	4.8	16
38	Revisiting the Origins of the Fracture Energy of Tough Double-Network Hydrogels with Quantitative Mechanochemical Characterization of the Damage Zone. <i>Macromolecules</i> , 2021, 54, 10331-10339.	4.8	22
39	How chain dynamics affects crack initiation in double-network gels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	12
40	In Situ Evaluation of the Polymer Concentration Distribution of Microphase-Separated Polyelectrolyte Hydrogels by the Microelectrode Technique. <i>Macromolecules</i> , 2021, 54, 10776-10785.	4.8	2
41	Instant Thermal Switching from Soft Hydrogel to Rigid Plastics Inspired by Thermophile Proteins. <i>Advanced Materials</i> , 2020, 32, e1905878.	21.0	97
42	Crack Tip Field of a Double-Network Gel: Visualization of Covalent Bond Scission through Mechanoradical Polymerization. <i>Macromolecules</i> , 2020, 53, 8787-8795.	4.8	65
43	Polyzwitterions as a Versatile Building Block of Tough Hydrogels: From Polyelectrolyte Complex Gels to Double-Network Gels. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 50068-50076.	8.0	26
44	Stress Relaxation and Underlying Structure Evolution in Tough and Self-Healing Hydrogels. <i>ACS Macro Letters</i> , 2020, 9, 1582-1589.	4.8	31
45	Bactericidal effect of cationic hydrogels prepared from hydrophilic polymers. <i>Journal of Applied Polymer Science</i> , 2020, 137, 49583.	2.6	3
46	Effect of the constituent networks of double-network gels on their mechanical properties and energy dissipation process. <i>Soft Matter</i> , 2020, 16, 8618-8627.	2.7	18
47	Hydrogels as dynamic memory with forgetting ability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 18962-18968.	7.1	76
48	Preparation of Tough Double- and Triple-Network Supermacroporous Hydrogels through Repeated Cryogelation. <i>Chemistry of Materials</i> , 2020, 32, 8576-8586.	6.7	41
49	Chitin-Based Double-Network Hydrogel as Potential Superficial Soft-Tissue-Repairing Materials. <i>Biomacromolecules</i> , 2020, 21, 4220-4230.	5.4	35
50	High-Fidelity Hydrogel Thin Films Processed from Deep Eutectic Solvents. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 43191-43200.	8.0	8
51	How surface stress transforms surface profiles and adhesion of rough elastic bodies. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020, 476, 20200477.	2.1	7
52	Anisotropic Double-Network Hydrogels via Controlled Orientation of a Physical Sacrificial Network. <i>ACS Applied Polymer Materials</i> , 2020, 2, 2350-2358.	4.4	19
53	Double-network gels as polyelectrolyte gels with salt-insensitive swelling properties. <i>Soft Matter</i> , 2020, 16, 5487-5496.	2.7	11
54	Hydrogels toughened by biominerals providing energy-dissipative sacrificial bonds. <i>Journal of Materials Chemistry B</i> , 2020, 8, 5184-5188.	5.8	28

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55	Integrin $\alpha 4$ mediates ATDC5 cell adhesion to negatively charged synthetic polymer hydrogel leading to chondrogenic differentiation. Biochemical and Biophysical Research Communications, 2020, 528, 120-126.	2.1	8
56	Lamellar Bilayer to Fibril Structure Transformation of Tough Photonic Hydrogel under Elongation. Macromolecules, 2020, 53, 4711-4721.	4.8	7
57	Mesoscale bicontinuous networks in self-healing hydrogels delay fatigue fracture. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7606-7612.	7.1	86
58	Fabrication of Bioinspired Hydrogels: Challenges and Opportunities. Macromolecules, 2020, 53, 2769-2782.	4.8	185
59	Fiber-Reinforced Viscoelastomers Show Extraordinary Crack Resistance That Exceeds Metals. Advanced Materials, 2020, 32, e1907180.	21.0	77
60	Phase Separation Behavior in Tough and Self-Healing Polyampholyte Hydrogels. Macromolecules, 2020, 53, 5116-5126.	4.8	49
61	Non-linear rheological study of hydrogel sliding friction in water and concentrated hyaluronan solution. Tribology International, 2020, 147, 106270.	5.9	7
62	Mechanical behavior of unidirectional fiber reinforced soft composites. Extreme Mechanics Letters, 2020, 35, 100642.	4.1	13
63	Effect of Relative Strength of Two Networks on the Internal Fracture Process of Double Network Hydrogels As Revealed by <i>In Situ</i> Small-Angle X-ray Scattering. Macromolecules, 2020, 53, 1154-1163.	4.8	40
64	Competitive cation- π interactions between small cations and polycations with phenyl groups in poly(cation- π) hydrogels. Giant, 2020, 1, 100005.	5.1	22
65	Tough double network elastomers reinforced by the amorphous cellulose network. Polymer, 2019, 178, 121686.	3.8	20
66	Polyelectrolyte complexation <i>via</i> viscoelastic phase separation results in tough and self-recovering porous hydrogels. Journal of Materials Chemistry B, 2019, 7, 5296-5305.	5.8	27
67	Hydrogel/Elastomer Laminates Bonded via Fabric Interphases for Stimuli-Responsive Actuators. Matter, 2019, 1, 674-689.	10.0	74
68	Double network hydrogels based on semi-rigid polyelectrolyte physical networks. Journal of Materials Chemistry B, 2019, 7, 6347-6354.	5.8	34
69	A Multiaxial Theory of Double Network Hydrogels. Macromolecules, 2019, 52, 5937-5947.	4.8	24
70	Programmed Diffusion Induces Anisotropic Superstructures in Hydrogels with High Mechano-Optical Sensitivity. Advanced Materials Technologies, 2019, 4, 1900665.	5.8	14
71	Tough Double-Network Gels and Elastomers from the Nonprestretched First Network. ACS Macro Letters, 2019, 8, 1407-1412.	4.8	36
72	Relaxation Dynamics and Underlying Mechanism of a Thermally Reversible Gel from Symmetric Triblock Copolymer. Macromolecules, 2019, 52, 8651-8661.	4.8	12

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73	Adjacent cationic aromatic sequences yield strong electrostatic adhesion of hydrogels in seawater. <i>Nature Communications</i> , 2019, 10, 5127.	12.8	202
74	Modulation and Characterization of the Double Network Hydrogel Surface-Bulk Transition. <i>Macromolecules</i> , 2019, 52, 6704-6713.	4.8	18
75	Macroscale Double Networks: Design Criteria for Optimizing Strength and Toughness. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 35343-35353.	8.0	49
76	Internal Damage Evolution in Double-Network Hydrogels Studied by Microelectrode Technique. <i>Macromolecules</i> , 2019, 52, 7114-7122.	4.8	10
77	Fabrication of Tough Hydrogel Composites from Photoresponsive Polymers to Show Double-Network Effect. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 37139-37146.	8.0	24
78	Effect of Structure Heterogeneity on Mechanical Performance of Physical Polyampholytes Hydrogels. <i>Macromolecules</i> , 2019, 52, 7369-7378.	4.8	42
79	Shearing-induced contact pattern formation in hydrogels sliding in polymer solution. <i>Soft Matter</i> , 2019, 15, 1953-1959.	2.7	1
80	Mechanoresponsive self-growing hydrogels inspired by muscle training. <i>Science</i> , 2019, 363, 504-508.	12.6	526
81	Facile synthesis of novel elastomers with tunable dynamics for toughness, self-healing and adhesion. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17334-17344.	10.3	70
82	Hydrophobic Hydrogels with Fruit-Like Structure and Functions. <i>Advanced Materials</i> , 2019, 31, e1900702.	21.0	64
83	Fabrication of Tough and Stretchable Hybrid Double-Network Elastomers Using Ionic Dissociation of Polyelectrolyte in Nonaqueous Media. <i>Chemistry of Materials</i> , 2019, 31, 3766-3776.	6.7	86
84	Superior fracture resistance of fiber reinforced polyampholyte hydrogels achieved by extraordinarily large energy-dissipative process zones. <i>Journal of Materials Chemistry A</i> , 2019, 7, 13431-13440.	10.3	40
85	Damage cross-effect and anisotropy in tough double network hydrogels revealed by biaxial stretching. <i>Soft Matter</i> , 2019, 15, 3719-3732.	2.7	17
86	Osteochondral Autograft Transplantation Technique Augmented by an Ultrapurified Alginate Gel Enhances Osteochondral Repair in a Rabbit Model. <i>American Journal of Sports Medicine</i> , 2019, 47, 468-478.	4.2	7
87	Toughening Mechanism of Double Network Gels and New Research Trends. <i>Nippon Gomu Kyokaishi</i> , 2019, 92, 352-356.	0.0	0
88	Fracture Process of Double-Network Gels by Coarse-Grained Molecular Dynamics Simulation. <i>Macromolecules</i> , 2018, 51, 3075-3087.	4.8	32
89	A Facile Method to Fabricate Anisotropic Hydrogels with Perfectly Aligned Hierarchical Fibrous Structures. <i>Advanced Materials</i> , 2018, 30, 1704937.	21.0	244
90	Tough and Variable-Band-Gap Photonic Hydrogel Displaying Programmable Angle-Dependent Colors. <i>ACS Omega</i> , 2018, 3, 55-62.	3.5	18

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91	Creating Stiff, Tough, and Functional Hydrogel Composites with Low-Melting-Point Alloys. <i>Advanced Materials</i> , 2018, 30, e1706885.	21.0	81
92	Network elasticity of a model hydrogel as a function of swelling ratio: from shrinking to extreme swelling states. <i>Soft Matter</i> , 2018, 14, 9693-9701.	2.7	71
93	Double Network Gels: Tough Particle-Based Double Network Hydrogels for Functional Solid Surface Coatings (<i>Adv. Mater. Interfaces</i> 23/2018). <i>Advanced Materials Interfaces</i> , 2018, 5, 1870118.	3.7	2
94	Micro patterning of hydroxyapatite by soft lithography on hydrogels for selective osteoconduction. <i>Acta Biomaterialia</i> , 2018, 81, 60-69.	8.3	22
95	How Supertough Gels Break. <i>Physical Review Letters</i> , 2018, 121, 135501.	7.8	22
96	Tough Particle-Based Double Network Hydrogels for Functional Solid Surface Coatings. <i>Advanced Materials Interfaces</i> , 2018, 5, 1801018.	3.7	78
97	Elastic-Plastic Transformation of Polyelectrolyte Complex Hydrogels from Chitosan and Sodium Hyaluronate. <i>Macromolecules</i> , 2018, 51, 8887-8898.	4.8	37
98	Multiscale Energy Dissipation Mechanism in Tough and Self-Healing Hydrogels. <i>Physical Review Letters</i> , 2018, 121, 185501.	7.8	104
99	Tough Hydrogels with Fast, Strong, and Reversible Underwater Adhesion Based on a Multiscale Design. <i>Advanced Materials</i> , 2018, 30, e1801884.	21.0	235
100	Distinctive Characteristics of Internal Fracture in Tough Double Network Hydrogels Revealed by Various Modes of Stretching. <i>Macromolecules</i> , 2018, 51, 5245-5257.	4.8	35
101	Tough and Self-Recoverable Thin Hydrogel Membranes for Biological Applications. <i>Advanced Functional Materials</i> , 2018, 28, 1801489.	14.9	47
102	TEM Observation of Nano-Scale Hydrogel Network Structure. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
103	Antibacterial Property of Cationic Hydrogels. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
104	Self-Toughening of Double Network Hydrogels By Using Bond Rupture-Induced Radical Polymerization. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
105	(Invited) Distinctive Characteristics of Internal Fracture in Tough Double Network Hydrogels Revealed By Various Modes of Stretching. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
106	(Invited) Creating "Double Network" Composites Via Macroscale Reinforcement. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
107	Energy-Dissipative Matrices Enable Synergistic Toughening in Fiber Reinforced Soft Composites. <i>Advanced Functional Materials</i> , 2017, 27, 1605350.	14.9	116
108	Supramolecular hydrogels with multi-cylindrical lamellar bilayers: Swelling-induced contraction and anisotropic molecular diffusion. <i>Polymer</i> , 2017, 128, 373-378.	3.8	20

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109	Tough polyion-complex hydrogels from soft to stiff controlled by monomer structure. <i>Polymer</i> , 2017, 116, 487-497.	3.8	38
110	Anisotropic tough double network hydrogel from fish collagen and its spontaneous inÂvivo bonding to bone. <i>Biomaterials</i> , 2017, 132, 85-95.	11.4	122
111	Bulk Energy Dissipation Mechanism for the Fracture of Tough and Self-Healing Hydrogels. <i>Macromolecules</i> , 2017, 50, 2923-2931.	4.8	102
112	Anisotropic Growth of Hydroxyapatite in Stretched Double Network Hydrogel. <i>ACS Nano</i> , 2017, 11, 12103-12110.	14.6	41
113	Water-Triggered Ductileâ€“Brittle Transition of Anisotropic Lamellar Hydrogels and Effect of Confinement on Polymer Dynamics. <i>Macromolecules</i> , 2017, 50, 8169-8177.	4.8	29
114	Tough, self-recovery and self-healing polyampholyte hydrogels. <i>Polymer Science - Series C</i> , 2017, 59, 11-17.	1.7	12
115	Inorganic/Organic Doubleâ€“Network Gels Containing Ionic Liquids. <i>Advanced Materials</i> , 2017, 29, 1704118.	21.0	165
116	Effects of osteochondral defect size on cartilage regeneration using a double-network hydrogel. <i>BMC Musculoskeletal Disorders</i> , 2017, 18, 210.	1.9	17
117	Stimuli-Responsive Transformation of a Gradient Gel. <i>Kobunshi Ronbunshu</i> , 2017, 74, 311-318.	0.2	0
118	Molecular structure and properties of click hydrogels with controlled dangling end defect. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2016, 54, 1227-1236.	2.1	10
119	Doubleâ€“Network Hydrogels Strongly Bondable to Bones by Spontaneous Osteogenesis Penetration. <i>Advanced Materials</i> , 2016, 28, 6740-6745.	21.0	225
120	Sensing surface mechanical deformation using active probes driven by motor proteins. <i>Nature Communications</i> , 2016, 7, 12557.	12.8	46
121	Strong and Tough Polyion-Complex Hydrogels from Oppositely Charged Polyelectrolytes: A Comparative Study with Polyampholyte Hydrogels. <i>Macromolecules</i> , 2016, 49, 2750-2760.	4.8	91
122	Self-Healing Behaviors of Tough Polyampholyte Hydrogels. <i>Macromolecules</i> , 2016, 49, 4245-4252.	4.8	191
123	Coupled instabilities of surface crease and bulk bending during fast free swelling of hydrogels. <i>Soft Matter</i> , 2016, 12, 5081-5088.	2.7	20
124	Stretching-induced ion complexation in physical polyampholyte hydrogels. <i>Soft Matter</i> , 2016, 12, 8833-8840.	2.7	47
125	Creep Behavior and Delayed Fracture of Tough Polyampholyte Hydrogels by Tensile Test. <i>Macromolecules</i> , 2016, 49, 5630-5636.	4.8	42
126	Hydroxyapatite-coated double network hydrogel directly bondable to the bone: Biological and biomechanical evaluations of the bonding property in an osteochondral defect. <i>Acta Biomaterialia</i> , 2016, 44, 125-134.	8.3	35

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127	Fundamental biomaterial properties of tough glycosaminoglycan-containing double network hydrogels newly developed using the molecular stent method. <i>Acta Biomaterialia</i> , 2016, 43, 38-49.	8.3	22
128	Synthetic <sc>PAMPS</sc> gel activates <sc>BMP</sc>/Smad signaling pathway in <sc>ATDC</sc>5 cells, which plays a significant role in the gel-induced chondrogenic differentiation. <i>Journal of Biomedical Materials Research - Part A</i> , 2016, 104, 734-746.	4.0	11
129	Quantitative Observation of Electric Potential Distribution of Brittle Polyelectrolyte Hydrogels Using Microelectrode Technique. <i>Macromolecules</i> , 2016, 49, 3100-3108.	4.8	37
130	Decoupling dual-stimuli responses in patterned lamellar hydrogels as photonic sensors. <i>Journal of Materials Chemistry B</i> , 2016, 4, 4104-4109.	5.8	34
131	<i>In vivo</i> cartilage regeneration induced by a double-network hydrogel: Evaluation of a novel therapeutic strategy for femoral articular cartilage defects in a sheep model. <i>Journal of Biomedical Materials Research - Part A</i> , 2016, 104, 2159-2165.	4.0	18
132	Tough Physical Double-network Hydrogels Based on Amphiphilic Triblock Copolymers. <i>Advanced Materials</i> , 2016, 28, 4884-4890.	21.0	442
133	Yielding Criteria of Double Network Hydrogels. <i>Macromolecules</i> , 2016, 49, 1865-1872.	4.8	119
134	Friction of Zwitterionic Hydrogel by Dynamic Polymer Adsorption. <i>Macromolecules</i> , 2015, 48, 5394-5401.	4.8	10
135	Phase-separation-induced Anomalous Stiffening, Toughening, and Self-healing of Polyacrylamide Gels. <i>Advanced Materials</i> , 2015, 27, 6990-6998.	21.0	132
136	Self-Adjustable Adhesion of Polyampholyte Hydrogels. <i>Advanced Materials</i> , 2015, 27, 7344-7348.	21.0	160
137	Anisotropic Gelation Induced by Very Little Amount of Filamentous Actin. <i>Macromolecular Chemistry and Physics</i> , 2015, 216, 2007-2011.	2.2	2
138	Drag force on micron-sized objects with different surface morphologies in a flow with a small Reynolds number. <i>Polymer Journal</i> , 2015, 47, 564-570.	2.7	9
139	Double-network hydrogel and its potential biomedical application: A review. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2015, 229, 853-863.	1.8	76
140	Quasi-unidirectional shrinkage of gels with well-oriented lipid bilayers upon uniaxial stretching. <i>Soft Matter</i> , 2015, 11, 237-240.	2.7	14
141	In Vitro Platelet Adhesion of PNaAMPS/PAAm and PNaAMPS/PDMAAm Double-network Hydrogels. <i>Macromolecular Chemistry and Physics</i> , 2015, 216, 641-649.	2.2	19
142	Polymer Adsorbed Bilayer Membranes Form Self-Healing Hydrogels with Tunable Superstructure. <i>Macromolecules</i> , 2015, 48, 2277-2282.	4.8	34
143	Oppositely Charged Polyelectrolytes Form Tough, Self-healing, and Rebuildable Hydrogels. <i>Advanced Materials</i> , 2015, 27, 2722-2727.	21.0	545
144	Tunable one-dimensional photonic crystals from soft materials. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2015, 23, 45-67.	11.6	93

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145	Molecular structure of self-healing polyampholyte hydrogels analyzed from tensile behaviors. <i>Soft Matter</i> , 2015, 11, 9355-9366.	2.7	100
146	Extremely tough composites from fabric reinforced polyampholyte hydrogels. <i>Materials Horizons</i> , 2015, 2, 584-591.	12.2	108
147	Swim bladder collagen forms hydrogel with macroscopic superstructure by diffusion induced fast gelation. <i>Journal of Materials Chemistry B</i> , 2015, 3, 7658-7666.	5.8	27
148	Free Reprocessability of Tough and Self-Healing Hydrogels Based on Polyion Complex. <i>ACS Macro Letters</i> , 2015, 4, 961-964.	4.8	96
149	Hydrogels as feeder-free scaffolds for long-term self-renewal of mouse induced pluripotent stem cells. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2015, 9, 375-388.	2.7	15
150	Hydrogel Friction and Lubrication. , 2014, , 145-181.		0
151	Prolonged morphometric study of barnacles grown on soft substrata of hydrogels and elastomers. <i>Biofouling</i> , 2014, 30, 271-279.	2.2	10
152	Mechano-actuated ultrafast full-colour switching in layered photonic hydrogels. <i>Nature Communications</i> , 2014, 5, 4659.	12.8	210
153	Intra-articular administration of hyaluronic acid increases the volume of the hyaline cartilage regenerated in a large osteochondral defect by implantation of a double-network gel. <i>Journal of Materials Science: Materials in Medicine</i> , 2014, 25, 1173-1182.	3.6	14
154	Materials both Tough and Soft. <i>Science</i> , 2014, 344, 161-162.	12.6	341
155	Polyelectrolyte hydrogels for replacement and regeneration of biological tissues. <i>Macromolecular Research</i> , 2014, 22, 227-235.	2.4	36
156	Proteoglycans and Glycosaminoglycans Improve Toughness of Biocompatible Double Network Hydrogels. <i>Advanced Materials</i> , 2014, 26, 436-442.	21.0	155
157	Brittleâ€“ductile transition of double network hydrogels: Mechanical balance of two networks as the key factor. <i>Polymer</i> , 2014, 55, 914-923.	3.8	119
158	Solvent and Ca ²⁺ -triggered robust and fast stress generation by ultrathin triple-network hydrogels. <i>Extreme Mechanics Letters</i> , 2014, 1, 17-22.	4.1	0
159	Fracture Process of Microgel-Reinforced Hydrogels under Uniaxial Tension. <i>Macromolecules</i> , 2014, 47, 3587-3594.	4.8	55
160	Friction of hydrogels with controlled surface roughness on solid flat substrates. <i>Soft Matter</i> , 2014, 10, 3192-3199.	2.7	60
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